UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,039	01/17/2002	Shishir Pardikar	13768.783.91	1257

47973   7590   09/05/2007

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ART UNIT	PAPER NUMBER
2141	

MAIL DATE	DELIVERY MODE
09/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/052,039	PARDIKAR ET AL.
	Examiner	**Art Unit**	
	Ranodhi Serrao	2141	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 July 2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,21-24 and 26-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,21-24 and 26-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 July 2007 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-18, 21-24, and 26-41 have been considered but are moot in view of the new ground(s) of rejection.

3.   The applicant argued in substance the newly added limitations of independent claims 1, 16, and 33. However, the new grounds teach these and the added features. See rejections below.

Claim Rejections - 35 USC § 103

4.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5.   Claims 1-11, 15-18, 23, 26-27, and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) and Oehrke et al. (6,735,631).

6.   As per claim 1, Serlet et al. teaches in a computer network, a method of

automatically and transparently handling WebDAV server and file access requests (see

Serlet et al., col. 5, line 60-col. 6, line 14), the method comprising: receiving at an I/O

manager an WebDAV I/O request initiated from an application program, wherein the

request indicates a path and filename of a remote file accessible via WebDAV (see

Serlet et al., col. 6, lines 25-64); downloading the file to a local cache of the redirector's

file system (see Serlet et al., col. 9, lines 54-63), and returning a file handle

corresponding to the file in the local cache to the application program (see Serlet et al.,

col. 11, lines 24-49); providing access to the file in the local cache of the file system via

the file handle (see Serlet et al., col. 9, line 64-col. 10, line 13); and receiving a request

to close the file via the file handle, and when received, uploading the file from the local

cache of the file system to the WebDAV server (see Serlet et al., col. 12, lines 45-54).

But fails to teach polling available redirectors to determine which redirectors are

configured to handle the application program's WebDAV I/O file request, each redirector

configured to receive and redirect WebDAV file requests to corresponding WebDAV

server computer systems that store the remote files; receiving responses from a

plurality of polled redirectors, each responding redirector being capable of redirecting

the received WebDAV I/O request; determining from a stored priority order which of the

plurality of responding redirectors has precedence to handle the WebDAV I/O request;

based on the determination, requesting a local file system of the redirector determined

to have precedence to create the file in response to the WebDAV I/O request. However,

Oehrke et al. teaches polling available redirectors to determine which redirectors are

configured to handle the application program's I/O file request, each redirector

configured to receive and redirect file requests to corresponding server computer

systems that store the remote files (see Oehrke et al., col. 8, lines 29-62); receiving

responses from a plurality of polled redirectors, each responding redirector being

capable of redirecting the received I/O request (see Oehrke et al., col. 8, line 63-col. 9,

line 2); determining from a stored priority order which of the plurality of responding

redirectors has precedence to handle the I/O request (see Oehrke et al., col. 8, lines 29-

62); based on the determination, requesting a local file system of the redirector

determined to have precedence to create the file in response to the I/O request (see

Oehrke et al., col. 8, line 63-col. 9, line 2). It would have been obvious to one having

ordinary skill in the art at the time of the invention to modify Serlet et al. to polling

available redirectors to determine which redirectors are configured to handle the

application program's I/O file request, each redirector configured to receive and redirect

file requests to corresponding server computer systems that store the remote files;

receiving responses from a plurality of polled redirectors, each responding redirector

being capable of redirecting the received I/O request; determining from a stored priority

order which of the plurality of responding redirectors has precedence to handle the I/O

request; based on the determination, requesting a local file system of the redirector

determined to have precedence to create the file in response to the I/O request in order

to use redirectors to re-route traffic to other application processors when one processor

is unavailable and load balance between available processors (see Oehrke et al.,

abstract).

7.   As per claim 2, Serlet-Oehrke teach receiving an I/O request initiated from an

application program comprises, receiving a Universal Resource Identifier corresponding

to a file on the WebDAV server (see Serlet et al., column 9, lines 38-53).

8.   As per claim 3, Serlet-Oehrke teach wherein receiving an I/O request initiated

from an application program comprises, receiving a filename and an identifier previously

mapped to a share on the WebDAV server (see Serlet et al., column 9, lines 54-63).

9.   As per claims 4, 5, 7, 9, and 11, the above-mentioned motivation of claim 1

applies fully in order to combine Serlet et al. and Oehrke.

10.   As per claim 4, Oehrke et al. teaches a method wherein polling available

redirectors to determine which redirectors are configured to handle the application

program's I/O request (see Oehrke et al., col. 8, lines 29-62) and Serlet et al. teaches,

issuing an HTTP OPTIONS request, and evaluating a response therefrom (see Serlet et

al., column 7, lines 35-56: wherein requests to create or delete a file or directory, etc.

serve the function of HTTP OPTIONS request).

11.   As per claim 5, Oehrke et al. teaches a method wherein polling available

redirectors to determine which redirectors are configured to handle the application

program's I/O request (see Oehrke et al., col. 8, lines 29-62) and Serlet et al. teaches

issuing a WebDAV PROPFIND request directed to share on the WebDAV server, and

evaluating a response therefrom (see Serlet et al., column 11, lines 24-49).

12.   As per claim 6, Serlet-Oehrke teach a method wherein the WebDAV server

returns property information in response to the WebDAV PROPFIND request directed to

the share and further comprising, maintaining the property information in a local data structure (see Serlet et al., column 8, line 66-column 9, line 22; column 11, lines 50-65).

13.   As per claim 7, Oehrke et al. teaches a method wherein polling available redirectors to determine which redirectors are configured to handle the application program's I/O request (see Oehrke et al., col. 8, lines 29-62) and Serlet et al. teaches issuing a WebDAV PROPFIND request directed to on the WebDAV server, and evaluating a response therefrom (see Serlet et al., column 11, lines 24-49).

14.   As per claim 8, Serlet-Oehrke teach a method wherein the WebDAV server returns property information in response to the WebDAV PROPFIND request directed to the file, and further comprising, maintaining the property information in a local data structure (see Serlet et al., column 8, line 66-column 9, line 22; column 11, lines 50-65).

15.   As per claim 9, Oehrke et al. teaches a method wherein polling available redirectors to determine which redirectors are configured to handle the application program's I/O request (see Oehrke et al., col. 8, lines 29-62) and Serlet et al. teaches issuing an HTTP OPTIONS request, evaluating a corresponding response, and determining that the server a WebDAV server (see Serlet et al., column 6, line 25-64); issuing a WebDAV PROPFIND request directed to a share on the WebDAV server, evaluating a corresponding response, and determining that the share exists on the WebDAV server, the response including share property information; and issuing a WebDAV PROPFIND request directed to the file, evaluating a corresponding response, and determining that the file exists, the response including file property information (see Serlet et al., column 11, lines 24-49).

16.   As per claim 10, Serlet-Oehrke teach a method of maintaining the share property

information and the file property information in at least one local data structure (see

Serlet et al., column 8, line 66-column 9, line 22; column 11, lines 50-65).

17.   As per claim 11, Oehrke et al. teaches a method wherein polling available

redirectors to determine which redirectors are configured to handle the application

program's I/O request (see Oehrke et al., col. 8, lines 29-62) and Serlet et al. teaches

communicating with at least one other local component to indicate that at least this

request can be handled (see Serlet et al., column 5, lines 20-52).

18.   As per claim 15, Serlet-Oehrke teach a computer-readable storage medium

having computer-executable instructions for performing the method claim 1 (see Serlet

et al., column 2, line 51-column 3, line 19).

19.   As per claim 16, Serlet et al. teaches a computer-implemented method of

automatically and transparently handling WebDAV server and file access requests (see

Serlet et al., col. 5, line 60-col. 6, line 14), the method comprising: receiving at a local

application programming interface layer an application I/O request comprising a

WebDAV Uniform Resource Identifier (URI) indicating a path and filename of a remote

file accessible via WebDAV (see Serlet et al., col. 5, lines 20-52 and col. 7, lines 35-56);

and if the specified share and file are accessible, handling the request (see Serlet et al.,

col. 5, lines 20-52), downloading the file to a local cache of the redirector's file system

(see Serlet et al., col. 9, lines 54-63), and returning a file handle corresponding to the

file in the local cache to the application program (see Serlet et al., col. 11, lines 24-49).

But fails to teach polling available redirectors to determine which redirectors are

configured to handle the WebDAV URI, each redirector configured to receive and

redirect URI requests to corresponding WebDAV server computer systems that store

the remote files; receiving responses from a plurality of polled redirectors, each

responding redirector being capable of redirecting the received WebDAV URI request;

determining from a stored priority order which of the plurality of responding redirectors

has precedence to handle the WebDAV I/O request; and including, based on the

determination, requesting a local file system of the redirector determined to have

precedence to create the file in response to the WebDAV I/O request. However, Oehrke

et al. teaches polling available redirectors to determine which redirectors are configured

to handle the request, each redirector configured to receive and redirect requests to

corresponding server computer systems that store the remote files (see Oehrke et al.,

col. 8, lines 29-62); receiving responses from a plurality of polled redirectors, each

responding redirector being capable of redirecting the received request (see Oehrke et

al., col. 8, line 63-col. 9, line 2); determining from a stored priority order which of the

plurality of responding redirectors has precedence to handle the I/O request (see

Oehrke et al., col. 8, lines 29-62) ; and including, based on the determination,

requesting a local file system of the redirector determined to have precedence to create

the file in response to the I/O request (see Oehrke et al., col. 8, line 63-col. 9, line 2). It

would have been obvious to one having ordinary skill in the art at the time of the

invention to modify Serlet et al. to polling available redirectors to determine which

redirectors are configured to handle the request, each redirector configured to receive

and redirect requests to corresponding server computer systems that store the remote

files; receiving responses from a plurality of polled redirectors, each responding

redirector being capable of redirecting the received request; determining from a stored

priority order which of the plurality of responding redirectors has precedence to handle

the I/O request; and including, based on the determination, requesting a local file

system of the redirector determined to have precedence to create the file in response to

the I/O request in order to use redirectors to re-route traffic to other application

processors when one processor is unavailable and load balance between available

processors (see Oehrke et al., abstract).

20.   As per claim 17, Serlet-Oehrke teach the application request includes the

Universal Resource Identifier (see Serlet et al., column 5, lines 20-52).

21.   As per claim 18, Serlet-Oehrke teach a method wherein the application request

includes an identifier that has been previously mapped to at least part of the Universal

Resource Identifier (see Serlet et al., column 9, lines 54-63).

22.   As per claim 21, Serlet-Oehrke teach a method wherein the application request

comprises an I/O request directed to a file, and wherein handling the request comprises

creating a local file corresponding to the I/O request (see Serlet et al., column 7, lines

35-56).

23.   As per claim 22, Serlet- Oehrke teach downloading at least some file data from

the WebDAV server to the local file (see Serlet et al., column 4, lines 27-53: wherein

accessing information serves as downloading file data).

24.   As per claim 23, Serlet-Oehrke teach returning a file handle corresponding to the

local file to the application (see Serlet et al., column 11, lines 24-49).

25.   As per claim 26, Serlet-Oehrke teach the application program's request indicates

a share on the WebDAV server and further comprising, issuing a WebDAV PROPFIND

request directed to the share on the WebDAV server (see Serlet et al., column 11, lines

24-49).

26.   As per claim 27, Serlet-Oehrke teach a method wherein the application

program's request further indicates a file on the share on the WebDAV server, and

further comprising, issuing a WebDAV PROPFIND request directed to the file (see

Serlet et al., column 11, lines 24-49).

27.   As per claim 32, Serlet-Oehrke teach a computer-readable storage medium

having computer-executable instructions for performing the method claim 16 (see Serlet

et al., column 2, line 51-column 3, line 19).

28.   As per claim 33, Serlet et al. teaches in a computer network, a system for

automatically and transparently handling WebDAV server and file access requests (see

Serlet et al., col. 5, line 6-col. 7, line 14), the system comprising: an application program

that issues WebDAV-related requests, including at least one request having a WebDAV

Uniform Resource Identifier (URI) corresponding to path and filename of a remote file

stored on a WebDAV server (see Serlet et al., column 5, lines 20-52); or communicating

with the WebDAV server to handle requests that cannot be handled locally (see Serlet

et al., col. 7, lines 35-56). But fails to teach a WebDAV redirector, the WebDAV

redirector configured to respond to polls used to determine which redirectors are

configured to handle the application's WebDAV-related request, each redirector

configured to receive and redirect WebDAV file requests to corresponding WebDAV

server computer systems that store the remote files; an I/O manager that receives

responses from a plurality of polled redirectors, each responding redirector being

capable of redirecting the received WebDAV I/O request; and determining from a stored

priority order which of the plurality of responding redirectors has precedence to handle

the WebDAV I/O request and indicating that the WebDAV redirector locally handling

each request corresponding to the WebDAV server can be handled locally and was

determined to have precedence to create the file in response to the WebDAV I/O

request. However, Oehrke et al. teaches a redirector, the redirector configured to

respond to polls used to determine which redirectors are configured to handle the

application's request, each redirector configured to receive and redirect file requests to

corresponding server computer systems that store the remote files (see Oehrke et al.,

col. 8, lines 29-62); an I/O manager that receives responses from a plurality of polled

redirectors, each responding redirector being capable of redirecting the received I/O

request (see Oehrke et al., col. 8, line 63-col. 9, line 2); and determining from a stored

priority order which of the plurality of responding redirectors has precedence to handle

the I/O request (see Oehrke et al., col. 8, lines 29-62) and indicating that the redirector

locally handling each request corresponding to the server can be handled locally and

was determined to have precedence to create the file in response to the I/O request

(see Oehrke et al., col. 8, line 63-col. 9, line 2). It would have been obvious to one

having ordinary skill in the art at the time of the invention to modify Serlet et al. to a

redirector, the redirector configured to respond to polls used to determine which

redirectors are configured to handle the application's request, each redirector configured

to receive and redirect file requests to corresponding server computer systems that store the remote files; an I/O manager that receives responses from a plurality of polled redirectors, each responding redirector being capable of redirecting the received I/O request; and determining from a stored priority order which of the plurality of responding redirectors has precedence to handle the I/O request and indicating that the redirector locally handling each request corresponding to the server can be handled locally and was determined to have precedence to create the file in response to the I/O request in order to use redirectors to re-route traffic to other application processors when one processor is unavailable and load balance between available processors (see Oehrke et al., abstract).

29.   As per claim 34, Serlet-Oehrke teach a system wherein the identifier corresponding to a WebDAV server issued by the application comprises a Universal Resource Identifier (see Serlet et al., column 5, lines 20-52).

30.   As per claim 35, Serlet-Oehrke teach a system wherein the identifier corresponding to a WebDAV server issued by the application comprises an identifier previously mapped to a share on the WebDAV server (see Serlet et al., column 9, lines 54-63).

31.   As per claim 38, Serlet-Oehrke teach a system that: creates a local representation of the file (see Serlet et al., column 6, line 65-column 7, line 34); determines whether the file exists on the WebDAV server, and if so, downloads at least some of the data from the WebDAV server file to the local representation of the file (see Serlet et al., column 4, lines 27-53: wherein accessing information serves as

downloading file data); returns a file handle corresponding to the local representation of

the file to the application program (see Serlet et al., column 11, lines 24-49); receives

I/O read and write requests associated with the file handle and handles the I/O read and

write requests via the local representation of the file (see Serlet et al., column 11, lines

24-49; column 12, lines 35-44); and receives an I/O close request associated with the

file handle, and handles the I/O close request by closing the local representation of the

file and uploading at least part of the local representation of the file to the WebDAV

server (see Serlet et al., column 11, lines 24-49).

32.   Claims 12-14, 28-30, and 39-41 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Serlet et al. and Oehrke et al. as applied to claims 1 and 16 above,

and further in view of Prust (6,714,968).

33.   As per claim 12, Serlet et al. and Oehrke et al. teach the mentioned limitations of

claim 1 above, but fail to teach determining that the file is encrypted on the WebDAV

server, and wherein downloading the file to a local cache comprises, communicating

with the file system to create an image of the file in the local cache that is also

encrypted. Prust teaches determining that the file is encrypted on the WebDAV server,

and wherein downloading the file to a local cache comprises, communicating with the

file system to create an image of the file in the local cache that is also encrypted (see

Prust, column 7, lines 39-55: wherein encryption and decryption may be done either

when the file is read or written). It would have been obvious to one having ordinary skill

in the art at the time of the invention to add determining that the file is encrypted on the

WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted in order to allocate a corresponding storage area for each user and store the respective user information in metadata database (see Prust, col. 7, line 59-col. 8, line 7).

34.   As per claim 13, Serlet et al., Prust, and Oehrke et al. teach the mentioned limitations of claims 1 and 12 above, but Serlet et al. and Oehrke et al. fail to teach communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file. Prust teaches communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file in order to allow the user to access the respective storage area via the many access interfaces (see Prust, col. 7, line 59-col. 8, line 7).

35.   As per claim 14, Serlet et al., Prust, and Oehrke et al. teach the mentioned limitations of claims 1 and 12 above, but Serlet et al. and Oehrke et al. fail to teach uploading the file from the local cache to the WebDAV server comprises,

communicating with the file system to read data from the local image of the file such

that the file will be uploaded as the encrypted image thereof. Prust teaches uploading

the file from the local cache to the WebDAV server comprises, communicating with the

file system to read data from the local image of the file such that the file will be uploaded

as the encrypted image thereof (see Prust, column 7, lines 39-55: wherein encryption

and decryption may be done either when the file is read or written). It would have been

obvious to one having ordinary skill in the art at the time of the invention to add

uploading the file from the local cache to the WebDAV server comprises,

communicating with the file system to read data from the local image of the file such

that the file will be uploaded as the encrypted image thereof in order to prevent

unauthorized users from accessing information about other users (see Prust, column 7,

lines 39-55).

36.   As per claim 28, Serlet et al. and Oehrke et al. teach the mentioned limitations of

claim 16 above but fail to teach the application request comprises an I/O request

directed to an encrypted file, and further comprising, automatically decrypting the data

locally when downloading the encrypted file from the WebDAV server and automatically

encrypting the data locally when uploading the encrypted file to the WebDAV server.

However, Prust teaches the application request comprises an I/O request directed to an

encrypted file, and further comprising, automatically decrypting the data locally when

downloading the encrypted file from the WebDAV server and automatically encrypting

the data locally when uploading the encrypted file to the WebDAV server (see Prust,

column 7, lines 39-55: wherein encryption and decryption may be done either when the

file is read or written). It would have been obvious to one having ordinary skill in the art

at the time of the invention to add the application request comprises an I/O request

directed to an encrypted file, and further comprising, automatically decrypting the data

locally when downloading the encrypted file from the WebDAV server and automatically

encrypting the data locally when uploading the encrypted file to the WebDAV server in

order to allocate a corresponding storage area for each user and store the respective

user information in metadata database (see Prust, col. 7, line 59-col. 8, line 7).

37.   As per claim 29, Serlet et al. and Oehrke et al. teach the mentioned limitations of

claim 16 above, but fail to teach the application request comprises an I/O request

directed to a file that is encrypted on the WebDAV server, and wherein handling the

request comprises, creating a local file corresponding to the I/O request and

downloading an image of the file on the WebDAV server to the local file, wherein the

local file is written by a local system such that the image corresponds to the encrypted

image on the WebDAV server. However, Prust teaches the application request

comprises an I/O request directed to a file that is encrypted on the WebDAV server, and

wherein handling the request comprises, creating a local file corresponding to the I/O

request and downloading an image of the file on the WebDAV server to the local file,

wherein the local file is written by a local system such that the image corresponds to the

encrypted image on the WebDAV server (see Prust, column 7, lines 39-55: wherein

encryption and decryption may be done either when the file is read or written). It would

have been obvious to one having ordinary skill in the art at the time of the invention to

add the application request comprises an I/O request directed to a file that is encrypted

on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server in order to allow the user to access the respective storage area via the many access interfaces (see Prust, col. 7, line 59-col. 8, line 7).

38.   As per claim 30, Serlet et al., Prust, and Oehrke et al. teach the mentioned limitations of claims 16 and 29 above, but Serlet et al. and Oehrke et al. fail to teach communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests. Prust teaches communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests in order to store data files and communicate the data files to the storage server for storage within the storage area (see Prust, col.1, lines 49-67).

39.   Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al., Oehrke et al., and Prust (6,714,968). Serlet et al., Oehrke et al., and Prust teach the

limitations mentioned above in claims 16, 29, and 30 but Prust and Oehrke et al. fail to

teach detecting a request to close the local file, closing the local file, communicating

with the file system to open the local file such that the file will not be decrypted when

read and uploading the file to the WebDAV server as an encrypted file. However, Serlet

et al. teaches detecting a request to close the local file, closing the local file,

communicating with the file system to open the local file (see Serlet et al., column 11,

lines 24-49); such that the file will not be decrypted when read (see Serlet et al., column

12, lines 35-44); and uploading the file to the WebDAV server as an encrypted file (see

Serlet et al., column 5, line 60-column 6, line 14: wherein authenticated access

functions as being encrypted). It would have been obvious to one having ordinary skill in

the art at the time of the invention to add detecting a request to close the local file,

closing the local file, communicating with the file system to open the local file such that

the file will not be decrypted when read and uploading the file to the WebDAV server as

an encrypted file in order to allow only the authorized user to have access to his/her

data on the WebDAV server (see Serlet et al., col. 6, lines 15-23).

40.   As per claim 39, Serlet et al. and Oehrke et al. teach the limitations mentioned

above in claims 33 and 38 and furthermore teaches a system wherein requesting the

file system to create a local file that is opened such that transparent encryption and

decryption are not enabled therefor (see Serlet et al., column 5, line 60-column 6, line

14: wherein authenticated access may not be enabled by the user); requesting the file

system to close the local file (see Serlet et al., column 11, lines 24-49). But fails to teach

the WebDAV file is encrypted, and wherein downloading at least some of the encrypted

file data by requesting the file system to write to the local file without translation thereof.

Prust however teaches the WebDAV file is encrypted (see Prust, column 7, lines 39-55:

wherein encryption and decryption may be done either when the file is read or written);

downloading at least some of the encrypted file data by requesting the file system to

write to the local file without translation thereof (see Prust, column 7, lines 7-34). It

would have been obvious to one having ordinary skill in the art at the time of the

invention to modify Serlet et al. to a system wherein the WebDAV file is encrypted, and

that creates the local representation of the file by downloading at least some of the

encrypted file data by requesting the file system to write to the local file without

translation thereof in order to allow an user to access virtual storage area using a

conventional electronic mail software application (see Prust, column 7, lines 7-34).

41.   As per claim 40, Serlet et al., Oehrke et al., and Prust teach the limitations

mentioned above in claims 33, 38, and 39. Serlet et al. also teaches a system

requesting the file system to reopen the local file (column 11, lines 24-49). But fails to

teach reads therefrom are decrypted and writes thereto are encrypted. Prust however

teaches reads therefrom are decrypted and writes thereto are encrypted (column 7,

lines 39-55). It would have been obvious to one having ordinary skill in the art at the

time of the invention to add reads therefrom are decrypted and writes thereto are

encrypted in order to allocate a corresponding storage area for each user and store the

respective user information in metadata database (see Prust, col. 7, line 59-col.8, line

7).

42.   As per claim 41, Serlet et al., Oehrke et al., and Prust teach the limitations

mentioned above in claims 33, 38, 39, and 40. But Oehrke et al. and Prust fail to teach

when the WebDAV redirector handles the I/O close request, and before uploading the

file, the WebDAV redirector closes the local representation of the file, and reopens the

local file by requesting the file system to open the file such that reads therefrom are not

decrypted. Serlet et al. however teaches a method of handling the I/O close request,

and before uploading the file, closing the local representation of the file (see Serlet et

al., column 11, lines 24-49), and reopening the local file by requesting the file system to

open the file such that reads therefrom are not decrypted (see Serlet et al., column 5,

line 60-column 6, line 14: wherein authenticated access function as being encrypted). It

would have been obvious to one having ordinary skill in the art at the time of the

invention to add a method of handling the I/O close request, and before uploading the

file, closing the local representation of the file, and reopening the local file by requesting

the file system to open the file such that reads therefrom are not decrypted in order for

authorized users to access their data on the WebDAV server without needing to input

authentication information for every transmission (see Serlet et al., col. 6, lines 15-23).

43.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et

al. and Oehrke et al. as applied to claim 16 above, and further in view of Charisius et al.

(2002/0078432). Serlet et al. and Oehrke et al. teach the mentioned limitations of claim

16 above, but fail to teach a networking request to browse a network share on the

WebDAV server, and wherein handling the request includes enumerating information of

the network share. However, Charisius et al. teaches a networking request to browse a

network share on the WebDAV server, and wherein handling the request includes

enumerating information of the network share (see Charisius et al., ¶132). It would have

been obvious to one having ordinary skill in the art at the time of the invention to add a

networking request to browse a network share on the WebDAV server, and wherein

handling the request includes enumerating information of the network share in order to

allow more than one user to view the same workflow or project plan, to provide

persistent storage, to monitor the progress of an activated project plan, to

simultaneously create plans from the same workflow, and to have essentially unlimited

access to the power of the tool through the ubiquity of the Internet (see Charisius et al.,

¶ 10).

44.   Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Serlet et al. and Oehrke et al. as applied to claim 33 above, and further in view of

French (6,654,794).

45.   As per claim 36, Serlet et al. and Oehrke et al. teach the above-mentioned

limitations of claim 33, but fail to teach a system wherein the WebDAV redirector

receives requests from the application via an application programming interface.

However, French teaches a system wherein the WebDAV redirector receives requests

from the application via an application programming interface (see French, col. 4, line

66-col. 5, line 19). It would have been obvious to one having ordinary skill in the art at

the time of the invention to modify Serlet et al. and Oehrke et al. to a system wherein

the WebDAV redirector receives requests from the application via an application

programming interface in order to perform its various operations and to provide the

requisite functionality of its features (see French, col. 4, line 66-col. 5, line 19).

46.   As per claim 37, Serlet et al. and Oehrke et al. teach the above-mentioned

limitations of claim 33, but fail to teach a system wherein the WebDAV redirector

receives the I/O request from a manager component. However, French teaches a

system wherein the WebDAV redirector receives the I/O request from a manager

component (see French, col. 4, lines 58-65). It would have been obvious to one having

ordinary skill in the art at the time of the invention to modify Serlet et al. and Oehrke et

al. to a system wherein the WebDAV redirector receives the I/O request from a

manager component in order to order to perform its various operations and to provide

the requisite functionality of its features (see French, col. 4, line 66-col. 5, line 19).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-

7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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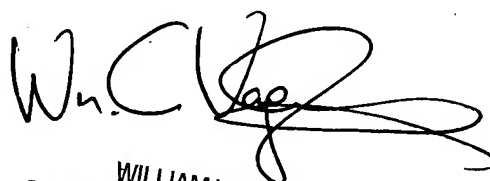
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RNS

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09/04/2007

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